Breast cancer: more hope, less fear

Taking a closer look at the tremendous advances of the past decade

Breast cancer awareness messages are widely communicated each year in October – Breast Cancer Awareness Month – with the hope that more women will do regular self-examinations and get tested. While awareness has been vital in improving survival among breast cancer patients, what is often overlooked is the tremendous advances that have been made in this field of medicine in the last decade or so.

- We are better at diagnosis

“We can visualise the tissue inside the breast in ways that were not possible a few years ago and find the traces of cancer in time to take rapid and effective action. ‘Imaging’ technology has taken great strides, with improved mammography and other new tools enabling medical professionals to see much more detail and any irregularities in the breast tissue,” says Dr Carol Ann Benn of the Breast Cancer Centre of Excellence, based at Netcare Milpark Hospital, in Johannesburg.

“The use of contrast-enhanced mammography and tomosynthesis allows for better sensitivity when viewing dense breast tissue. This is particularly important for younger women, who generally have denser breasts, as it improves the chance of an early diagnosis. Better diagnostic techniques mean less time under the radiographer’s scrutiny, and less need to repeat the procedure. This results in lower doses of radiation, which is good for all patients.”

- We understand the cancer better

“We have also refined our classification of different types of breast cancer, which helps oncologists, the medical professionals who treat cancer, to put together personalised treatment regimes for patients,” adds Dr Benn.

“Genetic tests on breast tissue samples give us a very finely-honed picture of the cancer. This means medical professionals have a vastly improved understanding of both how the cancer will behave and also, critically, how to tailor-make treatment for individual cases.”

In the past, chemotherapy, with all its side-effects, was usually the standard course of treatment. Now, some breast cancer patients may only need to undergo, for example, endocrine therapy, rather than adding chemotherapy to the treatment.

- We are getting much better at targeted therapy

“You may have heard of Tamoxifen, an endocrine therapy that attaches itself to a specific marker on a certain kind of cancer cell. Another newer drug, Herceptin, also targets a specific marker in a specific cancer. Instead of using a hammer to squash a bug, so to speak, these therapies tackle very particular aspects of each different cancer variant. This means they work better and the patient is exposed to fewer medications and treatment modalities,” Dr Benn observes.

There are many more such specific therapies in the pipeline. “Target-based agents, including epidermal growth factor receptor (EGFR), vascular endothelial growth factor (VEGF), and poly-ADP-ribose polymerase (PARP) inhibitors, are currently in clinical trials and hold promise in the treatment of other subsets of breast cancer, in particular the triple negative cancers,” says Dr Benn.

“The triple negative is a particular type of breast cancer, characterised by its biological aggressiveness, worse prognosis and lack of a therapeutic target, in contrast with other breast cancers. Triple negative has been a challenging form of breast cancer to treat, but there are promising advances and they will provide hope for many patients.”
• We do surgery better

“Not too long ago, treatment of breast cancer was clear-cut: a diagnosis meant a mastectomy – remove the breast, and possibly, if there was any risk that cancer had moved into the lymph nodes in the armpits, take away a lot more tissue, too. As a result, massive reconstruction would be required, and many women had lengthy rehabilitation processes.”

Now, wherever possible, surgeons remove lumps (lumpectomies) and carefully preserve as much of the breast as possible. If they have to remove the breast, they work very carefully to ensure the best possible options for reconstruction.

“The international guidelines for radiation have changed, with most oncologists accepting that if there is any nodal disease (even one lymph node is positive), radiation is preferred. This means more careful selection of reconstructive techniques used, and less use of prosthetic material. This is because the potential for higher complication rates, with the combination of radiation and prostheses, needs to be discussed carefully with patients,” notes Dr Benn.

• We have better surgical technology

Less time in theatre with more accurate and efficient surgery is a win-win for both patient and doctor. Technology such as Netcare Milpark Hospital’s newest acquisition, a Faxitron’s Biovision Intraoperative Margin Assessment probe, is a mobile, surgical specimen radiography system, which is more effective and saves time in the operating theatre.

“In fact, the average decrease in procedure times is about 20 minutes. The pathologist uses this technology during surgery to locate the tumour very accurately, and the surgeon uses it to make sure that a good ‘buffer zone’, free of cancer, is left around the tumour site,” says Dr Benn.

According to Dr Benn, in cases where the surgeons need to ‘image’ the breast during surgery, the option of doing ‘intraoperative digital mammography’, or imaging on the spot during surgery, is another benefit. “The imaging can be performed in the operating room, which provides immediate results to surgeons without having to wait for specimen radiographs to be returned to the operating room. The quality of the images is better and there is less imaging time required,” notes Dr Benn.

So, while none of us can afford to relax our vigilance – we should all still be doing our self-examinations and having regular mammography examinations – we can certainly look back on Breast Cancer Month knowing that great progress has been made in this field, and that there is immense hope for the future for breast cancer patients.

*Information compiled in October 2015*